

CLAIMS

1) A method of regenerating a glycol solution containing water, hydrocarbons and dissolved salts, comprising the following stages :

a) expanding said solution so as to release hydrocarbons and to obtain a
5 hydrocarbon-poor solution,

b) distilling in a distillation column the hydrocarbon-poor solution obtained in stage a) to obtain a glycol-enriched solution and a vapour comprising water and hydrocarbons,

c) placing under vacuum a first part of the glycol-enriched solution obtained in
10 stage b) under a pressure below 90,000 Pa abs. to obtain vaporized water and a glycol solution comprising precipitated salts,

d) separating the precipitated salts from the glycol solution obtained in stage c) to obtain precipitated salts and a salt-depleted glycol solution.

2) A method as claimed in claim 1, comprising the following stages :

e) placing under vacuum the salt-depleted glycol solution obtained in stage d)
15 under a pressure below 50,000 Pa abs. to obtain vaporized water and a glycol solution comprising precipitated salts,

f) separating the precipitated salts from the glycol solution obtained in stage e) to obtain precipitated salts and a second salt-depleted glycol solution.

3) A method as claimed in claim 1 wherein, in stage d), the precipitated salts are separated from the glycol solution by means of at least one of the following techniques : filtration, centrifugation, ultrasonic separation.

4) A method as claimed in claim 1 wherein, before stage c), the glycol-enriched solution obtained in stage b) is cooled to a temperature ranging between 30°C and 150°C.

5) A method as claimed in claim 1 wherein, before stage c), the glycol-enriched solution obtained in stage b) is heated to a temperature ranging between 30°C and 150°C.

6) A method as claimed in claim 1 wherein, in stage a), said solution is expanded to a pressure ranging between 0.1 MPa and 2 MPa abs. and wherein, in stage b), distillation is performed at atmospheric pressure.

7) A method as claimed in claim 2, wherein the depleted glycol solution obtained in stage e) heats the hydrocarbon-poor solution obtained in stage a).

8) A method as claimed in claim 1, wherein the following stages are carried out :

g) cooling the vapour containing water and hydrocarbons obtained in stage b) to obtain steam, a liquid hydrocarbon phase and an aqueous phase,

h) sending part of the aqueous phase obtained in stage g) to the top of the distillation column.

9) A method as claimed in claim 1, wherein the following stage is carried out :

i) feeding the vaporized water obtained in stage c) into said distillation column.

10) A method as claimed in claim 1, wherein the following stage is carried out :

j) combining a second part of the glycol-enriched solution obtained in stage b) with the salt-depleted glycol solution obtained in stage d).

11) A method as claimed in claim 1, wherein the following stage is carried out :

5 k) feeding water into the salt-depleted glycol solution obtained in stage d).

12) A method as claimed in claim 1, wherein the glycol consists of a compound selected from the group comprising monoethylene glycol, diethylene glycol and triethylene glycol.

13) A method as claimed in claim 1, wherein the salts comprise at least one of the
10 following compounds : sodium chloride, potassium chloride, calcium chloride and sodium bicarbonate, sodium sulfate, potassium sulfate, calcium sulfate.